

BALANDIN, A.A.; ROZHDESTVENSKAYA, I.D. (Moscow)

Effect of the surface reduction of chromium oxide on  
its catalytic properties. Zhur.fiz.khim. 34 no.6:  
1336-1344 Je '60. (MIRA 13:7)

I. Akademiya nauk SSSR, Institut organicheskoy khimii im.  
N.D.Zelinskogo.  
(Chromium oxide) (Reduction)

ARKHANGEL'SKIY, V.D., kand. tekhn. nauk; STRONGIN, A.M., inzh.;  
ROZHDESTVENSKAYA, I.F., red.; BARSUKOVA, Yu., tekhn.red.

[Devices for making wooden furniture] Prispoblenia dlia  
proizvodstva stoliarnoi mebeli. Moskva, KOIZ, 1951. 211 p.  
(MIRA 16:7)

(Carpentry--Tools)

ROZHDESTVENSKAYA, K.K.

Characteristics of the distribution of coal deposits in the  
southwestern Moscow Basin. Izv.AN SSSR.Ser.geol. 25 no.1:  
102-105 Ja '60. (MIRA 13:8)  
(Moscow Basin--Coal geology)

S/153/62/005/006/015/015  
E071/E333

AUTHORS: Rozhdestvenskaya, L.A. and Voskresenskiy, V.A.  
TITLE: Experience in electrochemical coating of plastics  
with metals  
PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Khimiya i  
khimicheskaya tekhnologiya, v. 5, no. 6, 1962,  
1001 - 1002

TEXT: The object of the investigation was the development  
of a chemical method of coating various plastics with a thin metal-  
lic layer in order to produce a thin conductive base film from a  
metal of high availability which can be subsequently used for  
electrodeposition of copper, nickel and other metals. Chemical  
deposition of silver was obtained by the following method. The  
surface of a plastic specimen is roughened with an abrasive,  
degreased with petrol, alcohol and washed with hot and cold water.  
The specimen is immersed into formalin at room temperature for  
10 - 15 minutes, whereupon the reducing agent diffuses to some  
depth into the plastic specimen. The specimen is then transferred  
into a silvering solution for 20 - 30 minutes. The silvering  
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Experience in ....

S/155/62/005/006/015/015  
E071/E333

solution is made up as follows: potassium hydroxide is added to a 0.5% solution of silver nitrate until the turbid  $Ag_2O$  is formed, which is then dissolved with a small quantity of  $NH_4OH$ . To this solution a 40% formalin is added in a proportion of 0.2 ml. per 100 ml. silver-nitrate solution. For the chemical deposition of copper, specimens treated with formalin as above are transferred into a solution consisting of (g/l.)  $CuSO_4 \cdot 5H_2O$  - 20; glycerin - 35; NaOH - 26; a 25% solution of NaOH - 10; a 40% solution of formalin 5 - 8. The specimens are retained in this solution for 30 - 40 minutes at room temperature.

ASSOCIATION: Kafedra khimii, Kazanskiy inzhenerno-stroitel'nyy institut  
(Department of Chemistry, Kazan' Construction Engineering Institute)

SUBMITTED: June 19, 1961

Card 2/2

BOZHUKOVA, L. A.: "The problem of the nature of the disjunctive systems formed during the electrolysis of aqueous solutions of the salts of certain metals." Min Higher Education USSR. Kazan' Chemical-Technological Inst. Inst. B. N. Kirov. Chair of Inorganic Chemistry. Kazan', 1954. (Dissertation for the Degree of Candidate in Chemical Science.)

33: Kazanskaya letopis' no. 36, 1956 Moscow.

D'YACHKOV, V.K., kand. tekhn. nauk.; ROZHDESTVENSKAYA, L.A., inzh.

Flexible roller support for belt conveyers. Vest.mash 38 no.10:40-42  
O '58. (MIRA 11:11)  
(Conveying machinery)

*11.11.1958 (L.F.)*  
USSR / Farm Animals: Silkworm.

Q-6

Abs Jour: Ref Zhur-Biol., No 12, 1958, 54874.

Author : Rozhdestvenskaya, L. F.

Inst : Not given.

Title : The Manifestations of Bivoltinism in the Mulberry-Feeding Silkworm in Relation to the Conditions of Maintenance in all Stages of Its Development.

Orig Pub: Sots. s. kh. Uzbekistana, 1957, No 2, 65-68.

Abstract: Voltinism is a breed characteristic, but the bivoltine breeds can produce one or two generations in a year depending on the maintenance of the parent generation. The White Cocoon Chinese breed 108, which is bivoltine in China, is cultivated in the USSR as a monovoltine breed. According to the author's experience, this breed produces a "silk-seed" self-vitalizing in its

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62

USSR / Farm Animals. Silkworms.

Q-7

Abs Jour : Ref Zhur - Biol., No 10, 1958, No 45343

Author : Rozhdestvenskaya, L. F.

Inst : Not given

Title : The Feeding of the Larvae of the Mulberry-Feeding Silkworm under Cover.

Orig Pub : Vestn. s.-kh. nauki, 1957, No. 6, 137-140.

Abstract : The accretion of the mulberry leaves which were saved during the first periods of the growth of larvae augments several times towards period V. In the case of the prevailing high temperature of the outer air, the feeding of larvae under humidified cover, or under parchment, was reducing the temperature by 8-10° C, was creating in the microzone a temperature and relative humidity within optimum limits, and was maintaining for a long period of time the feeding value of the leaves. The reduction of feeds from 11 times per day in

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ROZHDESTVENSKAYA, L.F.; ARIFOV, U.A., akademik; KLEYN, G.A.; ABLYAYEV,  
Sh.A.

Effect of gamma rays of Co<sup>60</sup> on the feed properties of  
mulberry leaves. Dokl. AN Uz. SSR no.8:11-13 '59.  
(MIRA 12:11)

1. AN UzSSR (for Arifov). 2. Institut yadernoy fiziki AN UzSSR.  
(Mulberry)  
(Gamma rays--Physiological effect)

S/123/59/000/09/19/036  
A002/A001

Translation from: Referativnyy zhurnal, Mashinostroyeniye, 1959, No. 9, p. 106,  
# 33647

AUTHOR: Rozhdestvenskaya, L. V.

TITLE: Some Peculiarities of Volume Transformations of Steel During  
Tempering

PERIODICAL: Tr. Kuybyshevsk. aviats. in-ta, 1958, No. 7, pp. 183-193

TEXT: Volume transformations were investigated on N. M. Starobinskiy's dilatometer during tempering of "15X" (15Kh), "40X" (40Kh), "X09" (Kh09), "X-15" (ShKh-15), "12XH3" (12KhN3), "18XHBA" (18KhNVA) alloy steels and carbon steels with up to 1.38% C content. The magnitudes of the dilatometric effects of the first and third transformation were influenced above all by the C content, but not by alloying elements. The temperature of the end of the first transformation was 175-180°C and remained almost constant for the specimens investigated. The temperature of the second transformation (end of residue austenite decomposition) ranged from 278 to 285°C in carbon steels. The temperature of

Card 1/2

A/123/59/000/09/19/036  
A002/A001

Some Peculiarities of Volume Transformations of Steel During Tempering

the third transformation increased from 320 to 400°C with a C content increasing from 0.45 to 1.35%. The alloying elements, especially Cr and Mo, inhibit or shift toward an increase the temperatures of the second and the third transformation. There are 14 figures and 11 references. ✓B

S. E. D.

Translator's note: This is the full translation of the original Russian abstract.

Card 2/2

SOV/137-59-7-15579

Translation from: Referativnyy zhurnal, Metallurgiya, 1959, Nr 7, p 197 (USSR)

AUTHOR: Rozhdestvenskaya, L.V.

TITLE: Some Peculiarities of Volume Transformations of Steel in Annealing

PERIODICAL: Tr. Kuybyshevsk. aviats. in-t, 1958, Nr 7, pp 183 - 193

ABSTRACT: The magnitude and temperature condition of transformations I, II and III in annealing of steel with different content of C and alloying admixtures were checked and specified. 30, 45, U-7, U-9, U-13, 15Kh, 12KhNZ, 18KhNVA, 40Kh, Kh09 and ShKh-15 steel grades were investigated, with the use of the new, more sensitive universal Starobinskiy dilatometer. The device registered automatically temperature-time and  $\Delta l$ -time curves. Analyses of these curves permitted to obtain dilatometric annealing curves in continuous heating up. It was confirmed that the main influence on the dilatometric effect of transformations I and III was produced by the C content. The effect of transformation III appears at a concentration of  $> 0.4\%$  C. The greatest dilatometric effect of transformations I and III appeared in U-9 and Kh09 steels. The final temperature of transformation I was 175 - 180°C, final temperature of II

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SOV/137-59-7-15579

Some Peculiarities of Volume Transformations of Steel in Annealing

was 278 - 285°C; the temperature of transformation III increased with a higher C content from 320°C for 0.45% C to 400°C for 1.33% C. Alloying elements, in particular Cr and Mo, inhibited or shifted towards increasing temperatures transformations II and III. There are 11 bibliographic titles.

G.I. ✓

Card 2/11

ROZHDESTVENSKAYA, M.A.; ANTONOVA, Ye.V.

Testing plastic equipment for the preparation and preservation  
of blood. Probl. gemat. i perel. Krovi 8 no.9:12-16 S '63.  
(MIRA 17:9)

1. Iz Leningradskogo ordena Trudovogo Krasnogo Znameni nauchno-  
issledovatel'skogo instituta perelivaniya krovi (dir.-dotsent  
A.D.Belyakov, nauchnyy rukovoditel' - chlen-korrespondent AMN  
SSSR A.N.Filatov.

18C AND 18D ORDERS

ROZHDESTVENSKAYA, M. A.

AND THE CROSS REACTIONS AND PROPERTIES INDEX

21

The use of alkalies from apatite in the manufacture of soap. V. N. Savvina and M. A. Rozhdestvenskaya. *Sbornik Rabot Vsesoyuz. Nauch. Issledovatel. Inst. Zhiv. Khim. i Tekh. Moyushchikh Sredstv* 1941. 92, 111; *Khim. Referat. Zhur.* 4, No. 9, 135-6(1941).—

The substitution of KOH for 40% of the NaOH in the production of soaps from rosin, naphthenes and sunflower seed oil did not affect the detergency of the soap. K decreased the hardness and the soly. of soap made from hardened fat. The effects of mixed NaOH and KOH in proportions in which they are present in the alkalies recovered from the nephelite wastes from apatite indicated that alkalies from apatite can be added to paste soaps only if mixed with ordinary NaOH, can be used in hard soap only if NaCl is used in the salting out, and can be used in the production of liquid soap; they are not recommended for toilet soap because they form a film on the soap and cause some difficulties in stamping the soap. W. R. Heun

A 18-51A OF TALLERICAL LITERATURE CLASSIFICATION

CLASSIFICATION

CLASSIFICATION

ROZHDESTVENSKAYA, M.A.

Hemoglobin in preserved blood. Probl.gemat.i perel.krovi 1  
no.1:39-40 Ja-F '56. (MIRA 14:1)

1. Iz Leningradskogo ordena Trudovogo Krasnogo Znameni nauchno-  
issledovatel'skogo instituta perelivaniya krovi (dir. -- dotsent  
A.D. Belyakov, nauchnyy rukovoditel' -- chlen-korrespondent AMN  
SSSR prof. A.N. Filatov).  
(BLOOD--COLLECTION AND PRESERVATION) (HEMOGLOBIN)

ROZHDESTVENSKAYA, M.A., starshiy nauchnyy sotrudnik

Change in blood protein fractions in donors as a result of immunization.  
Akt.vop.pere1.krovi no.4:36-39 '55. (MIRA 13:1)

1. Fiziko-khimicheskaya laboratoriya Leningradskogo instituta pereli-  
vaniya krovi (zav. laboratoriyey - prof. A.P. Vishnyakov).  
(WHOOPING COUGH--PREVENTIVE INOCULATION)  
(STREPTOCOCCAL INFECTIONS--PREVENTIVE INOCULATION)  
(BLOOD PROTEINS)

ROZHDESTVENSKAYA, M.A., starshiy nauchnyy sotrudnik

Stability of the hemoglobin in preserved blood. Akt.vop.perel.krovi  
no.4:57-58 '55. (MIRA 13:1)

1. Laboratoriya konservirovaniya krovi Leningradskogo instituta pereli-  
vaniya krovi (zav. laboratoriyey - starshiy nauchnyy sotrudnik A.D.  
Belyakov).

(HEMOGLOBIN) (BLOOD--COLLECTIONAND PRESERVATION)

ROZHDESTVENSKAYA, M.A., starshiy nauchnyy sotrudnik

Study of ferments of the hemin group in preserved blood. Akt.vop.perel.  
krovi no.4:59-60 '55. (MIRA 13:1)

1. Laboratoriya konservirovaniya krovi Leningradskogo instituta pereli-  
vaniya krovi (zav. laboratoriyey - starshiy nauchnyy sotrudnik A.D.  
Belyakov).

(BLOOD--COLLECTION AND PRESERVATION) (ENZYMES)

ROZHDESTVENSKAYA, M.A., starshiy nauchnyy sotrudnik

Physicochemical and biochemical studies of the liquid phase of a leucocyte culture containing growth-accelerating substances. Akt. vop.perel.krovi no.4:74-76 '55. (MIRA 13:1)

1. Laboratoriya konservirovaniya krovi (zav. laboratoriyey - starshiy nauchnyy sotrudnik A.D. Belyakov) i fiziko-khimicheskaya laboratoriya (zav. laboratoriyey - prof. A.P. Vishnyakov) Leningradskogo instituta perelivaniya krovi.

(LEUCOCYTES)

ROZHDESTVENSKAYA, M.A., starshiy nauchnyy sotrudnik; SOLOV'YEVA, T.G., starshiy nauchnyy sotrudnik

Colloid-chemical properties of blood serum and isohemagglutinin. Akt.  
vop.perel.krovi no.4:96-98 '55. (MIRA 13:1)

1. Fiziko-khimicheskaya laboratoriya (zav. laboratoriyey - prof. A.P. Vishnyakov) i syvorotochnaya laboratoriya (starshiy nauchnyy sotrudnik - T.G. Solov'yeva) Leningradskogo instituta perelivaniya krovi.  
(BLOOD--AGGLUTINATION)

USSR/Human and Animal Physiology -(Normal and Pathological).  
Blood. Blood Transfusions and Blood Substitutes.

T-4

Abs Jour : Ref Zhur - Biol., No 11, 1958, 50708

Author : Rozhdenstvenskaya, M.A.

Inst :

Title : Stored Blood Hemoglobin.

Orig Pub : Probl. gematol. i perclivaniya krovi, 1956, 1, No 1, 39-40

Abstract : Khilger's [Hilger's] spectrophotometer was used for the examination of methemoglobin (MtHb) in stored blood. Room temperature contributed to a very fast accumulation of MtHb, especially in the plasma at the presence of hemolysis. As long as Hb was placed within the erythrocytes, it was better protected against plasma factors and was preserved for a longer period of time. The lowest amount of MtHb was produced at  $-14-16^{\circ}$  [C], and also if a preservative was used which remained fluid at this temperature. The MtHb content went from the surface layer

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ANTONOVA, Ye.V., starshiy nauchnyy sotrudnik; BELYAKOV, A.D., starshiy  
nauchnyy sotrudnik; ROZHDESTVENSKAYA, M.A., starshiy nauchnyy sotrudnik

Urgent problems in the preservation of blood. Akt.vop.perel.krovi  
no.7:80-83 '59. (MIRA 13:1)

1. Laboratoriya konservirovaniya krovi Leningradskogo instituta  
perelivaniya krovi.  
(BLOOD--COLLECTION AND PRESERVATION)

ROZHDESTVENSKAYA, M.A., starshiy nauchnyy sotrudnik; DANILIN, I.I., starshiy  
nauchnyy sotrudnik; MIKHNOVICH, Ye.P., nauchnyy sotrudnik

Preservative solutions with mono- and disaccharides. Akt.vop.perel.  
krovi no.7:84-87 '59. (MIRA 13:1)

1. Laboratoriya konservirovaniya krovi Leningradskogo instituta pereli-  
vaniya krovi (zav. laboratoriyey - starshiy nauchnyy sotrudnik M.A.  
Rozhdestvenskaya).

(BLOOD--COLLECTION AND PRESERVATION)

ROZHDESTVENSKAYA, M.F. (L'vov)

Dental cysts deforming the antrum of Highmore. Probl.stom.  
6:206-208 '62. (MIRA 16:3)  
(MAXILLARY SINUS--TUMORS) (CYSTS)

ROZHDESTVENSKAYA, M.F.

Treatment of periradicular cysts in the upperjaw displacing the  
antrum of Highmore. Vrach.delo no.2:101-103 F '63. (MIRA 16:5)

1. Kafedra khirurgicheskoy stomatologii (zav. - dotsent A.V.  
Koval\*) Lvovskogo meditsinskogo instituta.  
(JAWS--DISEASES) (CYSTS)

27285

S/181/61/OC3/008/015/034  
B102/B202

15 2450

AUTHORS: Rozhdestvenskaya, M. V., Romanovskaya, O. S., and  
Yur'yeva, Ye. K.TITLE: Synthesis and some properties of Mg-Al ferrite single  
crystals

PERIODICAL: Fizika tverdogo tela, v. 3, no. 8, 1961, 2342-2345

TEXT: The authors studied the conditions of synthesis of Mg-Al ferrite single crystals by the Verneuil method and the method of crystallization from a solvent melt. The behavior and the physical properties of the ferrites of the system  $\text{MgO} - \text{Al}_2\text{O}_3 - \text{Fe}_2\text{O}_3$  in the shfrangeare of great interest. Their synthesis conditions are, however, still insufficiently investigated. The composition of the single crystals produced is given in Table 1. The specimens 1 and 5 were produced by the crystallization method, the samples 2-4 by the Verneuil method. With the latter method crystals of the dimensions  $d \approx 4-5$ ,  $l \approx 20-30$  mm were obtained, with the former the author obtained  $\text{MgFe}_2\text{O}_4$  single crystals of octahedral form with linear

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27285

S/181/61/OC3/008/015/034  
B102/B202

Synthesis and some properties of ...

dimensions of 2-4 mm. The reproducibility of a given composition by means of the Verneuil method was examined in samples 2 and 4, the results are shown in Table 2. This method is characterized by the high Fe<sup>2+</sup> content which occurs at high synthesis temperatures as the result of Fe<sub>2</sub>O<sub>3</sub> dissociation in the crystal. The following values were obtained when analysing sample 4 from this point of view:

	FeO, wt%	lattice constant, Å	synthesis temperature, °C
mass	0.56	8.285	1,350
crystal	7.2	8.305	1,850

Such crystals have low resistivity and wide ferromagnetic resonance absorption lines. In order to reduce the Fe<sup>2+</sup> content the samples were heated in the oxygen current at 1,350°C for 10 hours. This treatment led to a considerable reduction of the Fe<sup>2+</sup> content, resistivity increased by three orders of magnitude, the line width decreased (data of sample 4):

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B102/B202

Synthesis and some properties of ...

	a, Å	FeO, wt%	ρ, ohm·cm	ΔH [100], oe	ΔH [111], oe
before annealing	8.305	7.2	3.0	150	132
after annealing	8.289	1.2	3.7·10 <sup>4</sup>	54	25

When synthesizing MgFe<sub>2</sub>O<sub>4</sub> single crystals by crystallization from the melt PbO was used as solvent (ferrite: PbO = 1:4). Upon suggestion of A. G. Titova also experiments with B<sub>2</sub>O<sub>3</sub> addition were made. With this compound solvent MgFe<sub>2</sub>O<sub>4</sub> single crystals and Mg-Al ferrite of the composition 5 were obtained in the form of octahedra. Numerical data on the conditions of synthesis are given in Table 5. A study of the resonance absorption lines showed that the MgFe<sub>2</sub>O<sub>4</sub> crystals in the [111] direction have minimum width (ΔH = 18.6 oe). The ferromagnetic resonance parameters were measured by B. L. Lapovok. There are 3 figures, 5 tables, and 3 references: 1 Soviet and 2 non-Soviet. The reference to the English-language publication reads as follows: H. S. Belson, C. J. Kriesmann. J. Appl. Phys., IV, 1959.

Card 3/6

27286

S/181/61/003/008/016/034  
B102/B202

15.2450

AUTHOR: Rozhdestvenskaya, M. V.

TITLE: Problem of studying single crystals of the system  
MgO-MnO-Fe<sub>2</sub>O<sub>3</sub> synthesized by the Verneuil method

PERIODICAL: Fizika tverdogo tela, v. 3, no. 8, 1961, 2346-2349

TEXT: The author studies the conditions of synthesis of a series of composition from the system MgO-MnO-Fe<sub>2</sub>O<sub>3</sub>. The method of Verneuil proved to be especially suitable for the synthesis of spinel-type single crystals. By this method A. A. Popova produced ferrite single crystals of the mentioned system, which were characterized by especially narrow ferromagnetic resonance absorption lines. Using the crystallization apparatus (system of Popov) cylindrical crystals, 90-100 mm long, d = 8-10 mm, were obtained which were thoroughly studied. A microstructural analysis showed that in the composition no. 1 (MnFe<sub>2</sub>O<sub>4</sub>) the solid solution is disintegrated and α-Fe<sub>2</sub>O<sub>3</sub> is formed on the surface. Table 1 shows the results of a chemical

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Problem of studying single ...

S/181/61/003/008/016/034  
B102/B202

analysis of the samples no. 2 and no. 8. In these two samples the following half-widths (in oe) of the paramagnetic resonance absorption lines were measured at 9,200 Mc: no. 2: 31 [111], 27.3 [110], 23.3 [100]; no. 8: 15.7 [111], 10 [110], 9.7 [100]. Table 2 shows the lattice parameters as a function of the Mn content with a valence  $> 2$ . It was found that the width of the resonance lines largely depends on the crystal quality. Finally, the author thanks B. L. Lapovck and Ye. K. Yur'yeva for making the measurements, and O. V. Zenkevich for the chemical analyses. There are 4 figures, 2 tables, and 7 references: 5 Soviet and 2 non-Soviet. The reference to the English-language publication reads as follows: E. J. Scott. J. Chem. Phys., 23, 12, 1955.

SUBMITTED: March 9, 1961

Card 2/4

ROZHDESTVENSKAYA, M.V.; ROMANOVSKAYA, O.S.; YUR'YEVA, Ye.K.,

Some properties of single crystals of Mg - Al-ferrites and  
their synthesis. Fiz. tver. tela 3 no.8:2342-2345 Ag '61.  
(MIRA 14:8)

(Ferrates)

ROZHDESTVENSKAYA, M.V.

Study of single crystals of the system  $MgO - MnO - Fe_2O_3$   
synthesized by Verneuil's method. Fiz. tver. tela  
3 no.8:2346-2349 Ag '61. (MIRA 14:8)  
(Crystals—Growth)  
(Systems (Chemistry))

NAZARENKO, G.T.; ROZHDESTVENSEKAYA, M.V.

Magnetic method of investigating the tempering of steel. Trudy LPI  
no.202:102-107 '59. (MIRA 12:12)  
(Magnetic testing) (Steel--Testing)

ROZHDESTVENSKAYA, N. A.

"Ergot", Material po mikologii i fitopatologii, Vol. 5, No. 1, 1926.

ROZKOPSTVENSKAYA, N.B.

Determining the scattering constant of pure liquids. Vest. LGU 19  
no.16:42-47 1964. (MIRA 17:11)

ROZHDESTVENSKAYA, N.B.: WUKS, M.F.

Experimental determination of the absolute intensity of light  
scattering in pure liquids. Ukr. fiz. zhur. 9 no.5:544-548 1964  
(MIRA 17:9)

1. Leningradskiy gosudarstvennyy universitet.

VUKS, M.F.; ROZHDESTVENSKAYA, N.B.

A new determination of the light scattering constant using benzene.  
Dokl. AN SSSR 147 no.3:573-575 N '62. (MIRA 15:12)

1. Leningradskiy gosudarstvennyy universitet im. A.A. Zhdanova.  
Predstavleno akademikom A.A. Lebedevym.  
(Light-Scattering) (Benzene)

NORINA, A. Ye.; ROZHDESTVENSKAYA, O.A.; BYCHKOVA, N.A.

Utilization of the head fractions of hydrolyzates for the  
cultivation of yeasts. *Gidroliz. i lesokhim. prom.* 17 no.4:  
8-12 '64 (MIRA 17:7)

1. Tavdinskiy gidroliznyy zavod.

ROZHOE S TVENSKAYA, O.I.

5(2)

PHASE I WORK EXPLANATION

127,402

Academiya nauk SSSR. Institut geokhimi i analiticheskoy khimii  
Radioelementov elementov polucheniya, analiticheskoy, prikladnoy (rare Earth Elements:  
Production, Analysis, and Use) Moscow, Izd-vo AN SSSR, 1959. 531 p  
5,000 copies printed.

Resp. Ed.: D. I. Babichkov, Professor, Eds. of Publishing House: D. N. Trifanov  
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Corresponding Member, USSR Academy of Sciences, L. K. Zaslavskiy, Director of  
Chemical Sciences, R. V. Yochimov, Candidate of Chemical Sciences, V. I.  
Kuznetsov, Doctor of Chemical Sciences, M. K. Selyavin, Candidate of Chemical  
Sciences, and Yu. S. Shchegolev, Academic of Chemical Sciences.

PURPOSE: This book is intended for chemists in general and for geochemists and  
analytical chemists in particular.

COVERAGE: This collection of articles consists of reports presented at the Rare  
Earth Elements Symposium held in June 1956 at the Institute of Geochemistry  
and Analytical Chemistry (lead by V. I. Vernadskiy). The book may be divided in-  
to three sections: the characteristics, uses and production of rare earth  
elements (RE); the methods of analyzing RE; and the application of RE  
to various fields of science and technology. Considerable space is devoted to the  
industrial use of RE as catalysts. Considerable space is devoted to the  
application of ion-exchange chromatography in the production of pure forms  
of all rare earth elements. The conditions of this method with other methods  
in separating RE on an industrial scale are discussed by D. I. Babichkov,  
T. K. Shchegolev, and M. K. Selyavin. Chemical methods of separating  
RE compounds are discussed by T. N. Zaslavskiy, V. P. Kostikov, Z. P.  
Kobzareva, A. V. Kikulya, and G. P. Koshchikova. Quantitative RE analysis  
in the RE is described by Z. P. Kostikov, V. P. Kostikov, and G. P. Koshchikova.  
Analytical methods are described by Z. P. Kostikov, V. P. Kostikov, and G. P. Koshchikova.  
The determination of RE in pure products and some materials are discussed at length  
in the articles by T. P. Alimarin and T. Z. Pavlovskaya. The determination of  
RE impurities in pure products and some materials are discussed at length  
in these articles by A. S. Selyavin and his associates. All articles are ac-  
companied by photographs, diagrams, tables, and bibliographic references.

Volynskiy, K. I. Causes for the Variation in the Specific Gravity of Binary Alloys	42
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RUSSIAN DESTROYING C.I.

5(2) **PLANE I BOOK INFORMATION 807/1171**

**Abstrakty nauki USSR. Institut goskhimiz i analiticheskoy khimii**  
**Metodami nye elementy polucheniya, analizi, primeneniya (Rare Earth**  
**Elements) Extraction, Analysis and Application) Moscow, Izd-vo AN USSR,**  
**1958. 331 p. 2,400 copies printed.**

**Red. Ed.: D. I. Ryabchikov, Professor; Editorial Board: I. P. Alimarin,**  
**Corresponding member, USSR Academy of Sciences, I. E. Zolotarev, Doctor**  
**of Chemical Sciences, N. V. Koglyarov, Candidate of Technical Sciences,**  
**V. I. Kuznetsov, Doctor of Chemical Sciences, M. M. Skryabin, Candidate of**  
**Chemical Sciences, and N. S. Kuz'venev, Candidate of Chemical Sciences;**  
**Eds. of Publishing House: D. S. Trifonov and T. G. Lavij, Eds. Ed.: G. G.**  
**Makovich.**

**NOTE:** This book is intended for scientists, chemists, teachers and students  
of higher educational institutions, chemical and industrial engineers, and  
other persons concerned with the extraction, preparation, major study of  
rare earth elements.

**COVERAGE:** This collection contains reports presented at the June 1956 Conference  
on Rare Earth Elements at the Institute of Geochemistry and Analytical Chem-  
istry (Insti V. I. Vernadskiy of the Academy of Sciences USSR). The articles  
treat chemical methods of separating rare earth mixtures, methods of processing  
rare earth ores, ion exchange chromatography, chemical analysis, and some in-  
dustrial applications of rare earths. Aside from contributing authors, the  
editors mention the following Soviet scientists who are studying rare earth  
elements, rare earth deposits, extraction methods and the preparation of oxides  
and salts: Martynov, Mel'nikov, Khrushchov, Mal'kov, Pizarchitskiy, Chernovik,  
Tuzitskiy, Immanuel, Zubov and especially, N. A. Orlov, who first obtained the  
majority of rare earth elements in the pure state, separated many complex  
molecular compounds of these elements, and determined their specific properties.  
References are given at the end of each article.

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ROZHDESTVENSKAYA, S. B.

"Printsip i metod etnograficheskikh obsledovaniy v svete opyta ispol'zovaniya  
schetnykh mashin pri obrabotke anketnykh materialov."

report submitted for 7th Intl Cong, Anthropological & Ethnological Sciences,  
Moscow, 3-10 Aug 64.

ANDREYEVA, Z. F., LSHCHENKO, T. V., BREDENEL'D, N. V., RYZHKOVA, O. I.

"Trilon B in the Ion Exchange Separation of Less Common Rare Earth Elements."

Rare Earth Elements (Extraction, Analysis, Use), Published by the Institute of Geochemistry and Analytical Chemistry Imeni V. I. Vernadskiy, 1958, Moscow.

(Giredmet- State Rare Metals Scientific Research Institute and Moscow Agricultural Academy im K. A. Timiryazev), p. 100-107.

GALAKHOVA, O.F.; ROZHDESTVENSKAYA, T.B.

Use of thermoelectric comparators for checking a.c. compensators  
at increased frequencies. Trudy inst. Kom. stand., mer. i izm.  
prib. no.74:41-49 '63. (MIRA 18:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut metrologii im.  
D.I.Mendeleyeva.

VAL'CHIKHIN, D.D.; ROZHDESTVENSKAYA, T.B.

Model device for measuring great resistances. Trudy VNIIM no.14:28-53  
'53. (MIRA 11:6)

(Electric resistors--Measurements)

SOV/112-57-6-12559

Translation from: Referativnyy zhurnal. Elektrotehnika, 1957, Nr 6, p 135 (USSR)

AUTHOR: Rozhdestvenskaya, T. B.

TITLE: Method and Equipment for Checking the Instrument Current Transformers at Higher Frequencies (Metod i apparatura dlya proverki izmeritel'nykh transformatorov toka pri povyshennykh chastotakh)

PERIODICAL: Tr. Vses. n.-i. in-ta metrologii, 1956, Nr 28, pp 50-61

ABSTRACT: Checking equipment used to determine errors in instrument current transformers at the commercial frequency cannot provide the necessary precision for checking higher-frequency current transformers used in industrial HF outfits. The checking equipment developed by VNIIM is based on the differential null method and is intended for checking current transformers at 50, 400, 1,000, 2,500 and 8,000 cps. Frequency errors are reduced by the use of ironless mutual-inductance coils, by lower reactance, lower mutual inductance, and lower stray capacity of the circuit components. Theoretical and experimental studies of errors of the differential null instrument showed

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SOV/112-57-6-12559

Method and Equipment for Checking the Instrument Current Transformers at . . . . .  
that the errors do not exceed 0.02% and 1' at 400-2,500 cps and 0.05% and 2' at 8,000 cps. The equipment includes a special type OTCh-2 reference current transformer permitting measurements with an error of 0.1% or less. Conventional type UTT-1 reference current transformers have a considerably higher error at frequencies over 2,500 cps. The complete type UPTT-1 assembly for checking current transformers at higher frequencies, as manufactured at the "Etalon" Plant, includes in addition to the above components a zero-type equilibrium indicator ELUR-1, a load box, measuring instruments, a 1,000-cps standard, and a supply pack.

A. M. M. -Sh.

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SOV/112-57-6-12558

Translation from: Referativnyy zhurnal. Elektrotehnika, 1957, Nr 6, p 135 (USSR)

AUTHOR: Rozhdestvenskaya, T. B.

TITLE: Current-Transformer Errors at Audio Frequencies (Pogreshnosti izmeritel'nykh transformatorov toka v zvukovom diapazone chastot)

PERIODICAL: Tr. Vses. n.-i. in-ta metrologii, 1956, Nr 28, pp 62-72

ABSTRACT: At present, industry does not manufacture current transformers intended for checking work within a wide frequency range. In this connection, it is important to know to what degree conventional current transformers retain their accuracy when the frequency changes. At the VNIM Electric-Measurement Laboratory, frequency errors of the most widely used laboratory-type current transformers were investigated within the audio-frequency band. It has been pointed out that the current error ( $f_1$ ) and the angle error ( $\delta_1$ ) of a current transformer can be approximately expressed by these formulae:  $f_1 = A \sin \gamma$  and  $\delta_1 = A \cos \gamma$ , where the parameters  $A$  and  $\gamma$  are functions of the frequency and also dependent on the value and nature of the load, on the core-steel properties, and on the internal impedance of the secondary. In the

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SOV/112-57-6-12558

## Current-Transformer Errors at Audio Frequencies

3,000-10,000 cps range, the factor  $A$  is almost constant. The angle  $\gamma$  increases with frequency and does not exceed  $90^\circ$ . Hence,  $f_1$  is an increasing, and  $\delta_1$ , a decreasing, function of the frequency. Results of an experimental study of the effect of frequency on  $f_1$  and  $\delta_1$  are presented for these laboratory types of current transformers: UTT-5, LTT-1, I-54 (rated frequency 50 cps), GE 441/400 (P. Gertz Company, rated frequency 400 cps), LT-49 (50-400 cps), OTCh-2-50 (10,000 cps). The effect of current on errors is less pronounced at higher frequencies than at 50 cps; at 400 cps and higher frequencies, the effect of current is practically nil, which is due to the fact that the initial segment of the magnetization curve becomes a straight line at higher frequencies. Experimental results showed that current transformers rated at 50 cps can be used within a wide frequency range without appreciable impairment to their accuracy. It is expedient, therefore, to manufacture laboratory current transformers for 50-1,000 cps, class 0.2, which is easy to realize with the I-54 type.

V.M.L.

Card 2/2

SOV/112-58-3-4192

8(0)

Translation from: Referativnyy zhurnal. Elektrotehnika, 1958, Nr 3, p 105 (USSR)

AUTHOR: Val'chikhin, D. D., Zheludeva, N. G., and Rozhdestvenskaya, T. B.

TITLE: Standard Resistors Rated at  $10^6$  and  $10^7$  Ohms (Obraztsovyye mery elektricheskogo soprotivleniya s normal'nym znacheniyem  $10^6$  i  $10^7$  om)

PERIODICAL: Tr. Vses. n.-i. in-ta metrologii, 1956, Nr 28, pp 73-83

ABSTRACT: The construction of  $10^6$ - and  $10^7$ -ohm standard resistors is described, and observations of resistor stability during 1949-1955 are reported. All possible leakages are considered, and ways to eliminate sources of errors and instabilities are recommended. The following precautions were taken in making the resistor coils: (1) sectionalizing winding and providing good wire insulation; (2) reducing spool leakage, choosing proper materials, washing and drying; (3) vacuum drying the wound coils; (4) eliminating varnish completely, coil sealing; (5) providing a relatively loose winding that tends to weaken the influence of the difference between the temperature coefficients of

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8(0)

SOV/112-58-3-4192

Standard Resistors Rated at  $10^6$  and  $10^7$  Ohms

the wire and the spool material; (6) reducing the coil reactance by reversing the turns in the adjacent sections. To improve the resistor stability, an internal-stress-relieving thermal treatment was given (heating up to  $100-110^{\circ}\text{C}$  with many subsequent coolings). Over the above period the coil resistance changed: (a)  $10^7$  ohms by 0.033%; (b)  $10^6$  ohms by 0.016%. The trend toward resistance stabilization is noted.

N.I.T.

Card 2/2

SOV/115-58-5-22/36

AUTHOR: Pankratov, G.F. and Rozhdestvenskaya, T.B.

TITLE: A Method and Apparatus for Measuring Resistances up to  $10^{14}$  Ohm (Metod i apparatura dlya izmereniya soprotivleniy do  $10^{14}$  om)

PERIODICAL: Izmeritel'naya tekhnika, 1958, Nr 5, pp 47-50 (USSR)

ABSTRACT: The Vsesoyuznyy nauchno-issledovatel'skiy institut metrologii imeni D.I.Mendeleyeva (All-Union Research Institute for Metrology imeni D.I.Mendeleev) has designed an apparatus for the fine measurement of resistances in the range  $10^9$ - $10^{14}$  ohms. The principle of the apparatus is based on condenser discharge at dc, although the principle circuit and design differ from previous types. The advantages of the new method are: 1) Small effect of current leakages of the wiring on the measurement error; 2) Small effect of the circuit's parasitic capacities; 3) Wide measurement limits possible; 4) Voltage across the measured resistance remains constant during the measuring process. Then the author

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SOV/115-585-22/36

A Method and Apparatus for Measuring Resistances up to  $10^{14}$  Ohm

analyzes the functioning of the device. Measurements can be made at voltages of 10-500 V. The system differs from that suggested in literature in that a selector switch is used which allows the state of insulation of the measuring condenser to be checked without switching the latter out of the circuit. The apparatus (UBS-1) can measure resistances of the order  $10^9$ - $10^{14}$  with a 0.2%-0.5% tolerance. Concurrently with device UBS-1 (worked out under the guidance of L.S.Levin and S.Ya. Polyakov) other gauges were designed for measuring large MBS-1 resistances  $10 \times 10^8$ - $10^{11}$  with less than 1-2% difference between rated and actual resistance. The apparatus may thus be used for measuring large resistances and for checking teraohmeters. There are 1 circuit diagram and 3 references, 1 of which is Soviet and 2 English.

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SHRAMKOV, Ye.G.; GORBATSEVICH, S.V.; KOLOSOV, A.K.; DROTKOV, I.N.; LOZHDESTVENSKAYA,  
T.B.; SHIROKOV, K.P.; CHERNYSHEV, Ye.T.; YANOVSKIY, B.M.

Metrological activities in the field of electric and magnetic measure-  
ments. Trudy.VNIIM no.33:60-93 '58. (MIRA 11:11)

1. Rukovoditel' otдела elektricheskikh i magnitnykh izmereniy  
Vsesoyuznogo nauchno-issledovatel'skogo instituta metrologii imeni  
D.I. Mendeleyeva (for Shramkov).  
(Electric measurements) (Magnetic measurements)

ROZHDESTVENSKAYA, T.B.

Compensation method of checking single-phase meters.  
Trudy VNIIM no.38:118-125 '59. (MIRA 13:4)  
(Electric measurements)

SOV/115-59-5-18/27

9(3), 28(2)

AUTHORS: Rozhdestvenskaya, T.B. and Pankratov, G.F.

TITLE: Zero Indicator for High-Ohm Measuring Chains

PERIODICAL: Izmeritel'naya Tekhnika, 1959, Nr 5, pp 39-41 (USSR)

ABSTRACT: In the Laboratory for Electric Measuring VNIIM a zero-indicator has been constructed, which also can be used for converting direct current into alternating current. The zero indicator is intended to measure high resistances in bridge chains or compensating chains. An air condenser of small capacity, which has a good insulation, is switched by a special commutator 1) to the input chain of the amplifier for alternating current with an electron-radial tube at the output; 2) to the measuring chain. By changing over the condenser on the input resistance of the amplifier, an impulse appears on the screen of the electron-radial tube. It has been found, that the zero indicator can be used for measuring resistances not higher than  $10^{11}\Omega$ . There are 2 block diagrams and 4 references, 2 of which are Soviet and 2 English.

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s/115/60/000/011/008/013  
B019/B058

9,6000(1024,1067,1099)

AUTHORS: Rozhdestvenskaya, T. B. and Teplinskiy, A. M.

TITLE: Electrothermal Comparator for Measuring Small Alternating Currents and Checkup of Microammeters

PERIODICAL: Izmeritel'naya tekhnika, 1960, No. 11, pp. 41 - 44

TEXT: A prototype of an electrothermal comparator of the type ТЭКФ-1 (TEKF-1) was developed at the VNIIM imeni D. I. Mendeleev in 1959. It permits the measurement of alternating currents of 20 microamperes with an error of  $\pm(0.3 - 0.5)\%$ . The comparator consists of a sensitive thermoconverter of the type ТББ-1 (TVB-1), which is manufactured in series. It produces a thermo-emf of 2.5 millivolts at a current of 1 microampere. The heater of the thermoconverter is connected in an a.c. circuit, the thermo-emf is amplified by a photoamplifier and indicated by a galvanometer. The reading value produced with this circuit from the alternating current to be measured is subsequently adjusted by d.c. The d.c. values being known, the a.c. can be measured accurately by comparison. To

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Electrothermal Comparator for Measuring Small Alternating Currents and Checkup of Micro-ammeters S/115/60/000/011/008/013 B019/B058

increase the sensitivity, a photocompensation amplifier produced by the "Vibrator" plant is used in this comparator. The sensitivity of the comparator is 8 mm/microampere at a minimum current of 20 microamperes. It follows from the error investigation that in the range of 20 to 200,000 cycles the error amounts to a maximum of  $\pm 0.3\%$  for current measurements above 50 microamperes and to a maximum of  $\pm 0.5\%$  below 50 microamperes. There are 2 figures and 4 references: 3 Soviet and 1 US.

Card 2/2

ROZHDESTVENSKAYA, T.B.; ZORIN, D.I.; BRODSKIY, A.M.

New design of a high-resistance six-decade potentiometer. Izv.  
tekh. no.6:31-36 Je '61. (MIRA 14:5)  
(Potentiometer)

s/058/62/000/003/003/092  
A061/A101

AUTHORS: Pankratov, G. F., Rozhdestvenskaya, T. B.

TITLE: Conversion of true electric resistance unit values from standards to pattern and operating measures and to high-resistance instruments

PERIODICAL: Referativnyy zhurnal, Fizika, no. 3, 1962, 11, abstract 3A122 ("Tr. in-tov Kom-ta standartov, mer i izmerit. priborov pri Sov. Min. SSSR", 1961, no. 52 (112), 37-49)

TEXT: Methods and devices used by the VNIIM for testing resistors up to  $10^{14}$  ohms are considered. The lower part of the range is investigated by using a special-type bridge permitting the comparison of resistances, starting from  $10^7$  ohms of the standard manganin coil. Between  $10^{10}$  and  $10^{14}$  ohms, measuring is done by the condenser discharge method. The condenser capacity is reduced by the discharge current, and a constant voltage is thereby maintained at the tested resistor. The value of the latter is easily determined from time and change of capacity. Errors do not exceed  $\pm 0.03\%$  up to  $10^7$  ohms,  $\pm 0.3\%$  up to  $10^{10}$  ohms, and  $\pm 0.5\%$  up to  $10^{14}$  ohms.

K. Shirokov

[Abstracter's note: Complete translation.]  
Card 1/1

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ACC NR 172 ARG017172

SOURCE CODE: UR/0058/65/000/012/A015/A016

AUTHOR: Rozhdestvenskaya, T. B.

24  
B

TITLE: Metrological studies in the measurment of current, voltage, and power at higher frequencies

am gm

SOURCE: Ref. zh. Fizika, Abs. 12A177

REF SOURCE: Tr. in-tov Gos. kom-ta standartov, mer 1 izmerit. priborov SSSR, vyp. 76(136), 1965, 65-75

TOPIC TAGS: metrology, electric measurement, high frequency

ABSTRACT: The paper describes studies on the development of methods of transmitting current reference and voltage signals, based on standard measures of emf and d-c resistance without the need for making new standards for ac. The methods in question will permit direct comparison of a-c values with equivalent d-c values. Bibliography of 24 titles. L.Ivanova. [Translation of abstract] [KP]

SUB CODE: 09/ SUBM DATE: none

Card 1/1 vmb

ROZENTVENSKAYA, Tat'yana Borisovna; ANDYUNOV, V.O., doktor.  
tehn. nauk, red.; KIPARENKO, V.I., red.

[Electric comparators for precise current, voltage, and  
power measurements] Elektricheskie komparatory dlia tekhn.  
nykh izmerenii toka, napriazhenia i moshchnosti. Moskva,  
Izd-vo standartov, 1964. 183 p. (MIRA 1790)

RABKIN, D.M.; SAVICH, I.M.; ROZHDESTVENSKAYA, T.S.

Construction of all-aluminum passenger cars. Avtom. svar. 15 no.2:  
60-65 F '62. (MIRA 15:1)

1. Ordena Trudovogo Krasnogo Znameni Institut elektrosvariki im. Ye.  
O.Patona AN USSR (for Rabkin, Savich). 2. Kalininskiy vagonostroi-  
tel'nyy zavod (for Rozhdestvenskaya).  
(Railroads--Passenger cars) (Aluminum--Welding)

GERASIMOV, I.D., inzh.; ROZHDESTVENSKAYA, V.A., inzh.; STESEL', I.Ye.,  
inzh.

Mesh-reinforced concrete covering for a building with a span of 24 m.  
Prom. stroi. 39 no.3:35-37 '61. (MIRA 14:4)  
(Saratov—Precast concrete construction)

KULESHOV, Vasily Nikolayevich; KASHTANOV, M.F., dotsent, otv.red.;  
ROZHDESTVENSKAYA, V.A., red.

[Conversion of solar energy to electric power] Preobrazovanie  
solnechnoi energii v elektricheskuiu; lektsiia po kursu  
"Energetika predpriatii sviazi." Moskva, Vses.zaohryi elektr.  
in-t sviazi, 1961. 18 p. (MIRA 15:4)  
(Solar batteries)

NEYMAN, Vladimir Il'ich; ROZHDESTVENSKAYA, V.A., red.

[Simulation of problems in the theory of telephone communications] O modelirovanii zadach teorii telefonnykh soobshchenii; leksiia dlia studentov fakul'teta telefonno-telegrafnoi sviazi i slushatelei fakul'teta usovershenstvovaniia. Moskva, Vses. zaachnyi elektr. in-t sviazi, 1961. 50 p.

(MIRA 16:8)

(Telephone)

KOGAN, Mikhail Yefimovich; ROZHDESTVENSKAYA, V.A., red.

[Small-capacity subscriber's telegraph exchange (ATA-M)  
with automatic operation] Abonentnaia telegrafnaia stan-  
tsiia avtomaticheskogo obsluzhivaniia maloi emkosti  
(ATA-M). Moskva, Redaktsionno-izdatel'skii otдел VZEIS,  
1963. 14 p. (MIRA 17:11)

USHAKOV, Vyacheslav Andreyevich; KHACHIROV, L.I., otv. red.;  
ROZHDESTVENSKAYA, V.A., red.

[Diagrams of telephone apparatus with transistor  
amplifiers; manual for students of the fourth course  
in telegraph and telephone communication] Skhemy tele-  
fonnykh apparatov s usiliteliami na tranzistorakh;  
uchebnoe posobie dlia studentov IV kursa telegrafnoi i  
telefonnoi sviazi. Moskva, Redaktsionno-izdatel'skii  
otdel VZEIS, 1963. 33 p. (MIRA 17:5)

KHARKEVICH, Anatoliy Dem'yanovich; USHAKOV, V.A., otv. red.;  
ROZHDESTVENSKAYA, V.A., red.

[Principle schematics of the basic devices for the 47  
automatic telephone exchange] Printsipial'nye skhemy osnov-  
nykh priborov ATC-47. Moskva, Redaktsionno-izdatel'skii ot-  
del VZEIS, 1962. 39 p. (MIRA 16:12)  
(Telephone stations--Equipment and supplies)

KULESHOV, Vasiliy Nikolayevich; LOGINOV, A.G., kand.ekon.nauk,  
dots., retsenzent; GUBIN, N.M., otv. red.; ROZHDESTVENSKAYA,  
V.A., red.

[Principles of the organization of long-distance communica-  
tions; lectures in a course on "Theory of communications  
and long-distance communication" for students of engineer-  
ing and economics departments] Printsipy organizatsii dal'-  
nei sviazi; lektsii po kursu "Teoriia sviazi i dal'nei  
sviazi" dlia studentov inzhenerno-ekonomicheskogo fakul'teta.  
Moskva. Red.-izd. otdel VZEIS, 1963. 40 p. (MIRA 17:12)

SHEBES, Mikhail Romanovich; TSIKLINAM Yevgeniya Aleksandrovna;  
ROZHDESTVENSKAYA, V.A., red.

[Problems in electromagnetic field theory; textbook for students of the technological faculties of the All-Union Correspondence Electrotechnical Institute of Communications] Zadachnik po teorii elektromagnitnogo polia; uchebnoe posobie dlia studentov tekhnicheskikh fakul'tetov VZEIS. Moskva, Red.-izd.otdel Vses. zaonogo elektrotekhn. in-ta sviazi, 1963. 199 p. (MIRA 18:3)

USHAKOV, Vyacheslav Andreyevich; POKRASS, M.P., otv. red.;  
ROZHDESTVENSKAYA, V.A., red.

[Telephony; manual for students of the Engineering  
Economics Department of the All-Union Correspondence  
Institute of Electrical Communication] Telefonii;  
uchebnoe posobie dlia studentov inzhenerno-ekonomiche-  
skogo fakul'teta VZEIS. Moskva, Red.-izd. otdel VZEIS,  
Pt.1. 1963. 152 p. (MIRA 19:1)

ROZHDESTVENSKAYA, V.A. *processes and properties*

CA 112

The effect of additional feeding with carbohydrates and proteins on the vitality of silk worms. V. A. Rozhdestvenskaya. *Uchenye Zapiski Fakul'teta Estetovoznaniya, Mskov. Gosudarst. Pedagogicheskii Inst., Lab. Org. i Biol. Khim.* 1938, No. 3, 153-81; *Khim. Referat. Zhur.* 2, No. 5, 40-50 (1939).—Glucose, sucrose and flour from sprouting peas were added in the investigation of the influence of addnl. feeding with carbohydrates and proteins on the vitality of silk worms and on the quality of the silk thread. The addn. of sprouting pea flour in amts. of 1% of the wt. of the fresh leaves consumed daily increased the amt. of the eggs but did not influence the yield of silk. An addn. of 2% of powdered sucrose lowered the vitality of the larvae and increased the wt. of the raw silk cocoon. Powd. glucose gave neg. results in both cases.

W. R. Henn

ASAC METALLURGICAL LITERATURE CLASSIFICATION

ROZHDESTVENSKAYA, V. A.

✓ The effect of some vitamins on the biology of the oak silk worm. S. Ya. Demyanovskii, V. A. Rozhdestvenskaya, E. K. Stakhovskaya, V. Kf. Kondrat'eva, and A. N. Usova. *Uchenye Zapiski Gosudarst. Pedagog. Inst.* 77, No. 7, 81-91 (1953); *Referat. Zhur. Khim., Biol. Khim.* 1955, No. 18318. — A study of the effect of nicotinic acid, its amide, of vitamin B<sub>1</sub> (I), p-aminobenzoic acid (II) and of folic (III) and ascorbic (IV) acids on the oak silk worm was made. I and II stimulate the development of silk worm caterpillars, hasten the exudation and the winding of the silk threads, increase the wt. of the caterpillars, and enhance their resistance to the jaundice infection. B. S. Levine

(5)



SMOLIN, Aleksandr Nikolayevich; ROZHDESTVENSKAYA, Vera Aleksandrovna;  
MAKSIMOVA, V.V., red.; KARPOVA, T.V., tekhn.red.

[Laboratory experiments in organic and biological chemistry]  
Prakticheskie raboty po organicheskoi i biologicheskoi khimii.  
Izd.2., perer. i dop. Moskva, Gos.uchebno-pedagog.izd-vo M-va  
prosv.RSFSR, 1960. 177 p. (MIRA 13:12)  
(Chemistry, Organic--Laboratory manuals)  
(Biochemistry--Laboratory manuals)

DEMYANOVSKIY, S.Ya.; ROZHDESTVENSKAYA, V.A.

Some results of the work of the Department of Organic and Biological Chemistry in studying the biochemistry and physiology of the mulberry silkworm and Chinese tussah moth. Uch. zap. MGPI 140:3-54 '58. (MIRA 16:8)

1. Iz laboratorii organicheskoy i biologicheskoy khimii Moskovskogo gosudarstvennogo pedagogicheskogo instituta imeni Lenina.

BEHNDSEICENTNYV, V.S.; VASIL'EV, N.M.; KILIPOVICH, YUSO.; OBYEDKOVA, V.N.

Isolation of individual carbohydrates of mulberry leaves by  
tent chromatography. Zh. fiz. khim. i mikrokhim. 1 no. 2: 212-216  
Nov-Apr 1965. (MIRA 18:11)

1. Kafedra organicheskoy i biologicheskoy khimii Gosudarstvennogo  
pedagogicheskogo instituta imeni V.I. Lenina, Moskva.

Rozhdestvenskaya, V. I.  
USSR/Optics - Physiological Optics, K-9

Abst Journal: Referat Zhur - Fizika, No 12, 1956, 35926

Author: Rozhdestvenskaya, V. I.

Institution: Institute of Physiology, Academy of Pedagogical Sciences, RSFSR

Title: The Role of the Pupil of the Eye in the Conditioned-Reflex Change of the Sensitivity of the Eye in Peripheral Vision

Original  
Periodical: Probl. fiziol. optiki, 1955, 11, 25-29

Abstract: The reduction of the light sensitivity of peripheral vision during the process of dark adaptation took place both under the influence of a nonconditional irritation, namely light, as well as under the influence of a conditional irritation, a metronome combined beforehand with light. In addition, an investigation was made of the effect of including the pupillary reflex of the homotropization of the eye. It turned out, that when including the pupillary reflex, the reduction of the light sensitivity is less than if the pupil retains its mobility. The conclusion is drawn that there

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USSR/Optics - Physiological Optics, K-9

Abst Journal: Referat Zhur - Fizika, No 12, 1956, 35926

Abstract: takes place an influence of the cortex of the cranial brain on the peripheral processes in the viewing analyzer -- the decomposition of the "visual purple" -- influencing the reduction of the light sensitivity. The conditional-motional reflex of narrowing down the pupil also exerts its influence on the reduction of the light sensitivity.

Card 2/2

ROZHDESTVENSKAYA, V.I.; NEBYLITSYN, V.D.; BORISOVA, M.N.; YERMOLAYEVA-  
TOMINA, L.B.

Comparative study of various indexes of the strength of the nervous system in man. Vop. psikhol. 6 no.5:41-56 S-O '60. (MIRA 13:11)

1. Institut psikhologii APN RSFSR, Moskva.  
(Nervous system)

ROZHDESTVENSKAYA, Vera Ivanovna; NOVIKOV, Ya.A., red.; KARPOVA, T.V.,  
tekhn.red.

[Speech therapy for stuttering children of preschool age;  
handbook for instructors of speech therapy] Vospitanie rechi  
zaikayushchikhsia doshkol'nikov; posobie dlia uchitelei-logo-  
pedov. Moskva, Gos.uchebno-pedagog.izd-vo M-va prosv.RSFSR,  
1960. 63 p. (MIRA 13:7)

(Speech therapy)

UGLEVA, A.I.; KHABAS, I.M. [deceased]; FADEYEVA, O.A.; KATS, I.Z.; TER-CSIPOVA,  
M.Z.; ROZHDESTVENSKAYA, V.O.

Production of purified sorbed diphtheria and tetanus anatoxin for  
active immunization of children. Nauch. osn. proizv. bakt. prep.  
10:100-106 '61. (MIRA 18:7)

1. Leningradskiy institut vaktzin i syvorotok.

UGLEVA, A.I.; KHAUSTOVA, I.M.; ROZHDESTVENSKAYA, V.O.

Immunization with tetratoxid against wound infections. Zhur.  
mikrobiol.epid.i immun. 31 no.8:75-79 Ag '60. (MIRA 14:6)

1. Iz Leningradskogo instituta vaksin i syvorotok.  
(WOUNDS) (GANGRENE) (TETANUS) (VACCINES)

ZEMSKOV, V.M. (Moscow); R. H. HARTVICHENKO, V.V. (Leningrad)

Distribution of boron during the crystallization of solid  
solutions of germanium in silicon. Izv. AN SSSR Met. i gorn. Delo  
no. 3:151-153 (Apr-June 1967) (USSR 1967)

ACCESSION NR: AT4040557

S/2564/64/004/000/0117/0121

AUTHOR: Shashkov, Yu. M.; Rozhdestvenskaya, V. V.

TITLE: Growth of silicon carbide crystals from the gaseous phase

SOURCE: AN SSSR. Institut kristallografii. Rost kristallov, v. 4, 1964, 117-121

TOPIC TAGS: silicon carbide, single crystal growth, silicon carbide crystal, crystal growth equipment, vapor phase growth, silicon carbide sublimation

ABSTRACT: Growth of silicon carbide single crystals by deposition from the vapor phase on a silicon carbide substrate has been analyzed from the standpoint of vapor supersaturation, a factor not considered in earlier studies. The  $\alpha$ -type crystals were grown in an argon atmosphere in a specially built vacuum furnace under a temperature gradient excluding the effect of heat radiation on the growth process. Details of the furnace, a graphite crucible, and an inner perforated graphite cylinder containing the powdered substrate are presented

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ACCESSION NR: AT4040557

schematically. It was shown experimentally that the effect of vapor supersaturation is determined by the diameter of perforations and the temperature (height) of the substrate. The linear dimensions of a crystal reach a maximum at certain values of the diameter of perforations and the height of the substrate. In the early stage of crystallization, the crystal volume increases proportionally to the cube of the time of growth; then, it increases proportionally to the time. The slowing of the growth rate is interpreted in terms of the leveling of the supersaturation; the smaller the perforations, the earlier the leveling occurs, i.e. there is no longer a direct dependence of the growth rate on supersaturation. Thus, besides supersaturation in the vapor phase near the substrate, the most important factors in the growth process are the dimensions of the crucible and the charge. Orig. art. has: 6 figures.

ASSOCIATION: none

SUBMITTED: 00

DATE ACQ: 02Jul64

ENCL: 00

SUB CODE: SS

NO REF SOV: 000

OTHER: 004

Card. 2/2

L 53697-65 EWP(e)/EWT(m)/EWP(w)/EWP(i)/EWA(a)/T/EWP(t)/EWP(b)/EWA(c)  
EWP(a) JD

ACCESSION NR: AP5011929

UR/0363/65/001/003/0343/0346  
541.123+546.27+546.289+546.28

AUTHOR: Zemskov, V. S.; Rozhdestvenskaya, V. V.; Leonova, V. D.

TITLE: Interaction between boron, germanium, and silicon during crystallization of solid solutions based on these elements

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 1, no. 3, 1965, 343-346

TOPIC TAGS: boron, germanium, silicon, solid solution, distribution coefficient, alloy

ABSTRACT: Effective distribution coefficients of boron between liquid and solid phases of germanium-silicon alloys containing 15 and 47.8 atom % of silicon were determined. Concentration of boron in the solid solution was determined on the basis of the specific electrical conductivity which is proportional to the boron concentration in Si-Ge alloys of constant Si to Ge atomic ratio. An increase of boron concentration in the solid phase from  $1.7 \cdot 10^{18}$  to  $1.2 \cdot 10^{20}$  atoms per  $\text{cm}^3$  in a Ge-Si alloy containing 15 atom % of Si results in a reduction of the effective

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distribution coefficient of boron from 28.1 to 9.1. An increase of boron concentration from  $3.8 \cdot 10^{19}$  to  $3.8 \cdot 10^{20}$  atoms per  $\text{cm}^3$  in the Ce-Si alloys containing 47.8 atom % of Si results in a reduction of the effective distribution coefficient of boron from 16.8 to 4.3 atom % per  $\text{cm}^3$ . For comparison, the literature [H. E. Bridges, E. D. Kolb, *J. Chem. Phys.*, 25, 648 (1956)] gives 17 as the effective distribution coefficient of boron in germanium. Orig. art. has: 1 table, and 15 formulas.

ASSOCIATION: Institut metallurgii im. A. A. Baykova (Institute of Metallurgy)

SUBMITTED: 19Jun64

ENCL: 00

SUB CODE: MM

NO REF SOV: 005

OTHER: 002

ACCESSION NR: AP4040989

s/0279/64/000/003/0154/0157

AUTHORS: Zemskov, V. S. (Moscow); Rozhdestvenskaya, V. V. (Moscow)

TITLE: Boron distribution during crystallization of solid solutions of germanium in silicon

SOURCE: AN SSSR. Izvestiya. Metallurgiya i gornoye delo, no. 3, 1964, 154-157

TOPIC TAGS: boron germanium, silicon, solid solution, semiconductor, doping, impurity content

ABSTRACT: The behavior of most doping components during crystallization of Ge and Si furnishes data on equilibrium coefficients of distribution depending on the concentration of the doping impurity in the melt. When the boron content is small in a melt ( $3 \cdot 10^{18} \text{ cm}^{-3}$ ), its effective coefficient of distribution is found to be 17 during crystallization of Ge, 0.8 during crystallization of Si. But there have been no studies on the interaction between doping impurities and Ge and Si during crystallization of solid solutions of these semiconductors to give a continuous series of solid solutions. The authors now furnish results of studies on the distribution of boron during crystallization of Ge-Si solutions containing boron.

ACCESSION NR: AP4040989

Their experiments show that when the Ge content in melts is increased to 30%, the effective coefficient of boron distribution increases from less than one to values near one and higher. This coefficient depends on the concentration of boron in the solid phase, and when the concentration changes from  $6.2 \cdot 10^{18}$  to  $4.4 \cdot 10^{20}$   $\text{atm/cm}^3$ , it is almost halved, which indicates a change in ionization conditions of boron atoms in the solid phase. "The authors thank N. Kh. Abrikosov for his constant interest in the work and V. P. Dmitriyev for his aid in measuring the electrical conductivity." Orig. art. has: 1 figure, 1 table, and 6 formulas.

ASSOCIATION: none

SUBMITTED: 09Sep63

ENCL: 00

SUB CODE: EC

NO REF SOV: 004

OTHER: 007

Cards 2/2

ZEMSKOV, V.S.; ROZHDESTVENSKAYA, V.V.; LEONOVA, V.D.

Reaction of boron with germanium and silicon during the  
crystallization of solid solutions based on them. Izv. AN  
SSSR. Neorg. mat. 1 no.3:343-346 Mr '65. (MIRA 18:6)

1. Institut metallurgii imeni Baykova AN SSSR, Moskva.

SHASHKOV, Yu.M.; ROZHDESTVENSKAYA, V.V.

Growing silicon carbide crystals from the gaseous phase. *Rost.*  
krist. 4:117-121 '64. (MIRA 17:8)

ROZKIDESTVENSKAYA, V.V.

PHASE I BOOK EXPLOITATION 207/1966

Sovetskianlye po poluprovodnikovym materialam. Moscow, 1957  
Topyry metallurgii i fiziki poluprovodnikov: trudy 3-go sovetskianlye.  
(Problems in Metallurgy and Physics of Semiconductors; Transactions of  
the Third Conference) Moscow, Izdatvo M SSSR, 1959. 129 p. Extra slip  
inserted. 3,200 copies printed.

Sponsoring Agency: Akademiya nauk SSSR, Institut metallurgii i fiziki  
M. A. P. Publ. House: P. F. Zolotov.

Summary: This collection is intended for technical and scientific personnel  
concerned with the investigation and production of semiconductor materials.  
It may also be used by students in schools of metallurgy.

COVERAGE: The collection contains reports submitted at the Third Conference  
on Semiconductor Materials, Moscow, in May 1957. The reports deal with problems  
of obtaining and action was first edited by D. A. Petrov, Doctor of  
Technical Sciences. References accompany most of the reports.

Galozov, V. V. On the Problem of the Role of Some Factors in the  
Growth Process of Single Crystals from a Melt. 23

Polypko, E. B. Investigation of Hole Zones of Diamond-Type Crystals  
on the Example of the Polymorphism Theory  
Szigeti, Academician (Academy of Sciences, Hungarian People's Republic). 29

Concerning the Problem of Semiconductor Point-Contacts  
Wolcott, Z. (Institute of Basic Technical Problems, Polish Academy of  
Sciences) Properties of P-n Junctions in Germanium Single Crystals  
Withdrawn from the Melt by Pulling. 43

Sonocall, L. (Institute of Physics, Polish Academy of Sciences).  
Effect of the Introduction of Minority Current Carriers on Light In-  
tensity from Germanium. 49

Bugay, A. A., V. Ye. Kosenko, and Ye. G. Maslennik. Diffusion and Solu-  
bility of Iron and Silver in Germanium. 52

Vyalikh, A. B., and Ye. A. Pevsner. Investigation of Hole-Containing  
Semiconductors with Small. 57

Vasilovskaya, T. B., and Ye. G. Maslennik. Investigation of Segregation  
and Solubility of Some Impurities in Germanium During Crystallization  
Trounfi (Institute of Technical Physics, Czechoslovak Academy of  
Sciences). Problems of Obtaining Pure Silicon. 62

Petrov, D. A., Ye. M. Shabunov, Z. V. Koshchinskaya, and  
Ye. M. Shabunov. Growth of Silicon Single  
Crystals. 68

Halung Teaching (Institute of Applied Physics, Chinese People's  
Republic) Importance of Using Pure Water for Washing Materials Used  
in Semiconductor Engineering. 78

Abduliyev, G. B., M. I. Aliev, A. A. Bakhvalov, and G. M. Aliev.  
Effect of Intrinsic Impurities on the Physical Properties of Semiconductors.  
Abdullayev, G. B., G. A. Akhmedov, A. A. Kalyev, and Z. A. Alievova.  
On the Diffusion of Certain Metals in Polycrystalline Silicon. 80

Podols, L. D., and M. B. Arkharov. Problems of Alloying Silicon-  
Germanium Alloys. 89

Martynov, L. B., M. I. Kishinevskiy, and T. D. Puzanov. Effect of  
Growth Conditions of Single Crystals of CdS and CdSe on Their Physical  
Properties. 94

Todmanov, A. P., and G. A. Fedorov. Effect of Tempering and Certain  
Impurities on the Dark Resistance and Photoconductivity of CdS Single  
Crystals. 107

Salomov, I. (Institute of Technical Physics, Czechoslovak Academy of  
Sciences). Semiconductor Compounds with an Excess of One of the Com-  
ponents. 112

Sponov, V. P. Effect of Surface Condition on the Electrical Properties  
of Type A1113 Compounds. 117

Petrov, V. M., M. A. Kozlov, V. M. Yegorov, A. G. Gidrich, L.  
and other materials. Production and Investigation of New Semicon-  
ductor Materials. 120

AVAILABLE: Library of Congress. 127

77/dec/66  
3/20/61

Card 3/3

ROZHDESTVENSKAYA, YE.D.

"Anticoagulant therapy of pulmonary infarction."

Report submitted to the Czech. Medical Congress for the Medical Society of  
J.E. Purkyne, Prague, Czech. 12-17 Nov 1962

ROZHDESTVENSKAYA, Ye. D., Cand Med Sci (diss) -- "Thromboses and embolisms of the system of the pulmonary artery in terms of the anticoagulation therapy and prevention of them". Sverdlovsk, 1959. 15 pp (Sverdlovsk State Med Inst), 200 copies (KL, No 10, 1960, 137)

ARKHIPETS, Ye.; ROZHDESIVENSKAYA, Ye.I., red.; ZININ, I.F.,  
tekh. red.

[Tourist guide for the Kiev - Kanev excursion route]  
Turistskaia marshrutnaia skhema Kiev - Kanev. Moskva,  
Glav. upr. geodezii i kartografii, 1963. 8 p.  
(MIRA 17:1)

ROZBDESTVENSKAYA, Ye.I., red.; BARANOV, S.V., tekhn. red.

[A round trip from Moscow via "inland waterway"; a tourist  
ininerary] Moskovskaia krugosvetka; turistskaia marshrutnaia  
skhema. Moskva, 1962. 1 v. (MIRA 15:12)

1. Russia (1923- U.S.S.R.) Glavnoye upravleniye geodezii i  
kartografii.

(Russia, Northern—Guidebooks)

(Russia, Northern—Inland water transportation)

ROZHDESTVENSKAYA, Z.

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molochnoye zhiivotnovodstvo\_v  
sovkhoze "Proletariy" [Vyaznikov. rayon]. M.,  
Izd-vo M-va sovkhozov SSSR. 1954. 11 s. s ill. 20 sm.  
(M-vo sovkhozov SSSR. Glav. upr. s.-kh. propagandy).  
15.000 ekz. Bespl.- /54-55439/ p  
636.2.083 sr. (47.36)

SO: Knizhnaya Letopis, Vol. 1, 1955